DIRECT TESTIMONY OF

DWIGHT M. HOLLIFIELD, ASLA

ON BEHALF OF

SOUTH CAROLINA ELECTRIC & GAS COMPANY

DOCKET NO. 2014-86-E

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Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Dwight M. Hollifield. My business address is 10101 Claude Freeman Drive, Suite 100-W, Charlotte, NC 28262.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by UC Synergetic, LLC, a wholly owned subsidiary of Pike Electric Corporation, as Director in the System Planning & Siting Division ("SPS"). Pike Electric Corporation is headquartered in Mt. Airy, North Carolina.

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND, PROFESSIONAL ASSOCIATIONS, AND BUSINESS EXPERIENCE.

I received an Associate of Science degree in Horticulture from Catawba Valley College in 1967. I was employed by Duke Power Company (now known as Duke Energy Carolinas, LLC) and Duke Engineering & Services from July 1967 until May 2002 when Framatome ANP purchased Duke Engineering & Services. While at Duke Power, I led the development of a comprehensive

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transmission line siting process that SPS now executes when siting lines for various electrical utility clients, including South Carolina Electric & Gas Company ("SCE&G"). I was directly involved in the expansion of Duke Power's electrical transmission system, particularly as it related to siting and site development planning for substations and transmission lines. As Manager of Duke Power's Transmission Siting and Landscape Architecture Department, my responsibilities included siting transmission lines, which involved conducting studies to assess the environmental, cultural resource, land use, and aesthetic effects of those transmission line projects. I had responsibility for obtaining all necessary permits and licenses for new transmission lines and substations.

In 1995, my department moved from Duke Power to Duke Engineering & Services, and we began siting transmission lines for various electric utility clients, primarily in North Carolina, South Carolina and Georgia. We continued to site all new transmission lines for Duke Power on a contractual basis.

Following the acquisition of Duke Engineering & Services by Framatome ANP in 2002, I served as General Manager of Framatome's Facilities Planning & Siting Department, and siting transmission lines and electrical substations continued to be our primary service offering. Framatome's Facilities Planning & Siting Department continued to site lines for Duke Power and for many other clients, including SCE&G.

In 2005, two business associates and I acquired my department from Framatome ANP and organized it as a limited liability company named Facilities

Planning & Siting, LLC. I served as President of Facilities Planning & Siting, LLC until June 30, 2009, when we were acquired by Pike Electric Corporation. While operating as a limited liability company and now as a wholly owned subsidiary of Pike Electric Corporation, our primary service offering was, and continues to be, the siting, permitting and licensing of electrical transmission lines and substations.

UC Synergetic, LLC—with offices in Charlotte, North Carolina; Atlanta, Georgia; Boston, Massachusetts; Columbia, South Carolina; Denver, Colorado; Dallas, Texas; Exton, Pennsylvania; Hoover, Alabama; Land O Lakes, Florida; Louisville, Kentucky; Raleigh, North Carolina; and Roanoke, Virginia—provides electrical transmission and distribution systems planning, siting, permitting, engineering and project management services to electrical utility clients throughout the United States and in some foreign countries.

From 1990 until 2002, I represented Duke Energy on the Edison Electric Institute's Siting and Environmental Planning Task Force. In 1991, I was appointed to and served on the North Carolina Utilities Commission Rulemaking Committee that drafted Rule R8-62, which is used by the Commission to administer the provisions of North Carolina's Transmission Line Siting Act.

Since 1987, I have participated in and managed the successful siting, permitting and licensing of more than 180 transmission lines, virtually all of which are located in North and South Carolina.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to discuss the transmission line siting methodology that SCE&G, in collaboration with SPS, utilized when choosing the route for the Lyles-Saluda River-Lake Murray 230 kV Lines ("Lines") and associated facilities. My company collected, mapped, and analyzed extensive information regarding environmental, land use, cultural resource, and visual effects of the proposed lines.

Q. DO YOU HAVE ANY DOCUMENTS THAT SUPPORT OR ILLUSTRATE YOUR TESTIMONY?

A. Yes. As SCE&G's siting and project permitting consultant, I am the author of the *Transmission Line Siting and Environmental Report for the Lyles-Saluda River-Lake Murray 230 kV Lines and Associated Facilities* ("Transmission Line Siting and Environmental Report"), dated January 2014 and attached to SCE&G's Application in this docket as Exhibit A and to this testimony as Exhibit No. __ (DMH-1). This report details the need for the Lyles-Saluda River-Lake Murray 230 kV Lines and associated facilities, the process by which SCE&G selected the routes for the lines, and the research and studies conducted regarding the environmental, land use, cultural resource, and visual effects of the lines and the associated facilities.

Q. PLEASE DESCRIBE THE ROUTE FOR THE PROPOSED LYLES-SALUDA RIVER-LAKE MURRAY 230 kV LINES.

A. The Lyles-Saluda River-Lake Murray 230 kV Lines' route originates in Richland County at SCE&G's Lyles Substation that is located in Columbia on the east side of the Broad River, approximately one-third mile south of U.S. Highway 176. The route runs in westerly, northwesterly, and northerly directions for approximately 10 miles to SCE&G's Lake Murray Substation near the Saluda River Dam and Powerhouse in Lexington County. Along the way from the Lyles Substation to the Lake Murray Substation, the two Lines will be connected to the new Saluda River 230/115 kV Substation.

Q. WILL THE PROPOSED LYLES-SALUDA RIVER-LAKE MURRAY 230 kV LINES AND ASSOCIATED FACILITIES HAVE ANY SIGNIFICANT SHORT- OR LONG-TERM ENVIRONMENTAL IMPACTS?

A. No. As explained in more detail in the Transmission Line Siting and Environmental Report, the construction and operation of the Lyles-Saluda River-Lake Murray 230 kV Lines will not have any significant short- or long-term impacts on the environment.

Q. WHAT WAS THE CONCLUSION OF THE STUDIES THAT WERE CONDUCTED FOR THE LYLES-SALUDA RIVER-LAKE MURRAY 230 kV LINES AND ASSOCIATED FACILITIES TO DETERMINE EFFECTS TO RARE, THREATENED AND ENDANGERED SPECIES?

A. Palmetto Environmental Consulting, Inc. ("PEC") conducted a protected species literature and records search in November 2013 to determine the presence of known occurrences of federally and state-listed animal and plant species on or within one-mile of the right-of-way within which the Lyles-Saluda River-Lake Murray 230 kV Lines will be located. This search revealed one active bald eagle nest near the Saluda River, approximately 0.5 mile east of the Lines' route, and another bald eagle nest just south of the Lines' route near the Broad River. The Broad River nest was last observed in 1977; its present status is unknown. PEC did not locate this nest during its search for protected species in the project corridor. PEC did, however, locate a bald eagle nest not recorded in the South Carolina Department of Natural Resources' database near the Saluda River approximately 500 feet west of the Lines' route in the vicinity of the Lake Murray Substation.

Bald eagles are no longer protected under the Endangered Species Act, but they remain protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. The United States Fish and Wildlife Service ("USFWS") has published National Bald Eagle Protection Guidelines (May 2007)

which recommend the following regarding construction activities in the vicinity of active bald eagle nests:

> In general, activities should be kept as far away from nest trees as possible; loud and disruptive activities should be conducted when eagles are not nesting; and activity between the nest and the nearest foraging area should be minimized.

Accordingly, SCE&G will not engage in construction activities within 660 feet, the construction exclusion buffer distance recommended by the USFWS, of the bald eagle nests from October 1 to May 31, the period spanning the entire bald eagle nesting cycle in the southeastern United States according to the USFWS.

Seven other state-listed species—nestronia, winter grape-fern, sandhills milkvetch, redlip shiner, blacknose dace, spatulate seedbox, and red standing-cypress—have been documented within one mile of the project area. However, none of the documented occurrences are known to be within the right-of-way, which PEC verified. PEC also found no other state-and/or federal-listed threatened and endangered species in the right-of-way.

In summary, the proposed Lyles-Saluda River-Lake Murray 230 kV Lines and associated facilities are unlikely to have any adverse effects on rare, threatened or endangered species.

Q. PLEASE DESCRIBE THE IMPACTS TO WETLANDS OR STREAMS, IF ANY, THAT WILL RESULT FROM CONSTRUCTION AND OPERATION OF THE LYLES-SALUDA RIVER-LAKE MURRAY 230 kV LINES AND ASSOCIATED FACILITIES.

A. The construction and operation of the Lyles-Saluda River-Lake Murray 230 kV Lines and associated facilities will not have any significant short- or long-term impacts to wetlands or streams. SCE&G will utilize established wetland protection guidelines when operating near or within wetland areas, and the function of wetlands crossed by the Lines will not be changed.

If SCE&G is successful in acquiring the additional 2.7 acres of new right-of-way needed to construct the Lines in such a way as to allow the removal of an existing structure on the linear island between the Broad River and Columbia Canal without replacing it, it will be necessary to clear trees from approximately 0.05 acres of wetlands on the Lyles Substation property.

The Lyles-Saluda River-Lake Murray 230 kV Lines will cross certain streams along its route. Any existing low-growing vegetation will be left intact to the maximum practical extent in stream buffer zones, and root mats in any specified buffer zones will not be disturbed. SCE&G will install erosion control measures wherever they may be required to prevent translocation of sediment from construction sites to wetlands or streams. Based on my direct experience in planning erosion control measures for more than 100 transmission line construction projects, there will be no adverse impacts to wetlands or streams

resulting from construction of the Lyles-Saluda River-Lake Murray 230 kV Lines in the existing, cleared right-of-way that has well established access already in place.

Q. WHAT WAS THE CONCLUSION OF THE CULTURAL RESOURCE INVESTIGATION THAT WAS CONDUCTED ALONG THE ROUTE OF THE LYLES-SALUDA RIVER-LAKE MURRAY 230 kV LINES AND ASSOCIATED FACILITIES?

A. In August 2013, SCE&G engaged Brockington and Associates, Inc. ("Brockington") to conduct background research to identify all previously recorded archaeological and historic resources within 1.25 miles of the Lyles-Saluda River-Lake Murray 230 kV Lines' route and to conduct a "windshield reconnaissance survey" to identify any previously unrecorded architectural resources within 1.25 miles of the route that appear eligible for listing on the National Register of Historic Places ("NRHP"). In 2011, Brockington previously conducted background research and a windshield reconnaissance survey on a two-mile segment of the Lines' route in conjunction with the VCS2-St. George 230 kV Lines No. 1 and No. 2. Along this two-mile segment the Lyles-Saluda River-Lake Murray 230 kV Lines and the VCS2-St. George 230 kV Lines No. 1 and No. 2 will share right-of-way. The results of Brockington's 2011 investigation along the segment were combined with Brockington's 2013 investigation along the remaining sections of the Lyles-Saluda River-Lake Murray 230 kV Lines.

After completing the background research, SCE&G engaged Brockington to conduct a Phase I archaeological investigation in the right-of-way within which the Lyles-Saluda River-Lake Murray Lines are to be located. Based on this investigation, Brockington concluded that there are no historic archaeological properties within the Lyles-Saluda River-Lake Murray 230 kV Lines' right-of-way that require further cultural resources management actions and recommended to the South Carolina State Historic Preservation Office that clearance be issued for the project.

In short, no adverse impacts to cultural resources are anticipated. Moreover, a "viewshed analysis" concluded that the no NRHP listed resources, NRHP eligible resources and NRHP potentially eligible resources will be adversely affected by views of the proposed Lines.

Q. WHAT WILL BE THE VISUAL EFFECTS OF THE PROPOSED LYLES-SALUDA RIVER-LAKE MURRAY 230 kV LINES AND ASSOCIATED FACILITIES?

A. The Lines will have very low overall visual effects for six primary reasons:

- The Lines will largely be built within an existing SCE&G right-of-way and will not pose visual modifications resulting from right-of-way clearing.
- The Lines will replace existing 115 kV lines that are located on lattice steel towers.

- The Lines will share existing SCE&G right-of-way with multiple other existing SCE&G transmission lines from the Lyles Substation to a point just west of the Saluda River Substation, which is a distance of approximately 4 miles.
- The eastern portion of the Lines will reside in areas where visual conditions are highly modified by residential, commercial, industrial, and road infrastructure development.
- Significant portions of the middle and western segments of the Lines will traverse undeveloped areas where existing trees that reside on each side of the right-of-way provide significant screening.
- As the Lines pass through the vicinity of the Saluda River Dam and Powerhouse as they near the Lake Murray Substation, the scenic character of the area is defined by existing electrical generation and transmission facilities.

Q. IS THE IMPACT OF THE PROPOSED LYLES-SALUDA RIVER-LAKE MURRAY 230 kV LINES AND ASSOCIATED FACILITIES UPON THE ENVIRONMENT JUSTIFIED CONSIDERING THE STATE OF AVAILABLE TECHNOLOGY AND THE NATURE AND ECONOMICS OF THE VARIOUS ALTERNATIVES?

A. Yes. Because SCE&G chose to build the Lyles-Saluda River-Lake Murray 230 kV Lines entirely within existing SCE&G rights-of-way (with the exception

of the small portion of new right of way SCE&G seeks to acquire near its Lyles Substation), the resulting environmental, land use, cultural resource, and aesthetic effects are minimized. Moreover, as Witness Young states in his testimony, SCE&G considered several alternatives to the proposed lines and associated facilities and determined that the proposed facilities are the superior solutions to provide its customers with long-term electrical system reliability.

Q. IN YOUR PROFESSIONAL JUDGMENT, WAS SCE&G'S SELECTION OF THE ROUTE FOR THE LYLES-SALUDA RIVER-LAKE MURRAY 230 kV LINES PROPER?

A. Yes. In my professional judgment, SCE&G's selection of the chosen route for the Lyles-Saluda River-Lake Murray 230 kV Lines was proper.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.